

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application:

Listing of Claims:

Claim 1. (canceled)

2. (previously presented) A hardener as claimed in claim 22 wherein the hardener also comprises at least one UV-absorber.

3. (previously presented) A hardener as claimed in claim 22 wherein the hardener also comprises at least one free radical scavenger.

4. (previously presented) A hardener as claimed in claim 22 wherein the hardener also comprises at least one antioxidant.

5. (previously presented) A hardener as claimed in claim 22 wherein the hardener also comprises at least one dye and/or pigment.

6. (previously presented) A hardener as claimed in claim 22 wherein the hardener also comprises at least one filler.

7. (previously presented) A hardener as claimed in claim 22 wherein the hardener also comprises at least one additive.

Claims 8-17 (canceled)

18. (previously presented) A cured epoxy material,

manufactured from an epoxy resin and a hardener as defined by claim 22.

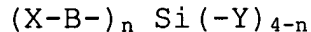
Claims 19-21 (canceled)

22. (currently amended) A hardener for curing of epoxy resins, said hardener comprising a sol ~~being obtained by hydrolysis and condensation of silane compound in a solvent,~~ produced by:

hydrolyzing and condensing of a silane compound in a solvent, yielding a reaction product comprising the solvent, particle-forming condensate products, and volatile components; and

removing at least a portion of the volatile components, yielding the sol;

wherein the silane compound is represented by the formula:



where:

$n = 1$, $X = \text{NR}_1\text{R}_2$;

R_1 , R_2 are both hydrogen;

B is a spacing group chosen from saturated or unsaturated $\text{C}_1\text{-C}_{18}$ -alkylene, substituted or non-substituted arylene, while the carbon chains of the stated compounds may include one or more of the elements oxygen, nitrogen, sulphur, phosphorus, silicon and boron; and

Y is ethoxy or methoxy;

wherein the reaction product obtained by the hydrolysis and condensation includes the solvent, particle forming condensate products which have free amino groups on the surface, and volatile components which include alcohols and water; and

wherein the sol is obtained by removing the volatile

components in the reaction product, and the reaction product substantially comprises polyhedral oligomeric silsesquioxanes.

23. (currently amended) A hardener as claimed in claim 22, wherein free amino groups at the surface of the particle-forming condensation product in the sol have been ~~entirely or partly~~ converted with reactive compounds such as epoxides, acid derivatives, blocked and non-blocked isocyanates and compounds of the type R-X, where X is chosen among halogen, substituted or non-substituted alkoxyl, phenoxyl, amine, carboxylate, sulphonate, sulphinate, phosphonate and phosphinate, and R is chosen among non-substituted saturated and unsaturated C₁-C₂₄ alkyl, substituted saturated or unsaturated C₁-C₂₄ alkyl, substituted or non-substituted aryl, aliphatic or aromatic carbonyl, wherein the carbon chains of said compounds may optionally include one or more of the elements nitrogen, sulphur, silicon and boron and groups chosen among condensation products of one or more type of chemical compounds such as acids, alcohols, phenols, amines, aldehydes and epoxides.

24. (previously presented) A method for curing epoxy resins, comprising the steps of

(i) producing the sol as defined in claim 22 by removing the volatile components from the reaction product; and

(ii) mixing the sol, subsequent to possible storage, with an epoxy resin so that the epoxy resin is cured.

Claim 25 (canceled)

26. (previously presented) A hardener for curing of epoxy resins as claimed in claim 22, wherein the solvent is a mixture

of butyldiglycol water.

27. (previously presented) A hardener for curing of epoxy resins as claimed in claim 22, wherein the hydrolysis and the condensation are conducted by heating the mixture of the solvent and the particle forming condensate products in an oil bath to 110°C under reflux for 45 minutes.

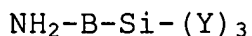
28. (previously presented) A hardener for curing of epoxy resins as claimed in claim 22, wherein the volatile components are removed in an oil bath to 110°C and a vacuum gradient from 1000 mbar-20 mbar.

29. (new) A hardener for curing of epoxy resins, said hardener comprising a sol produced by:

hydrolyzing and condensing of a silane compound in a solvent, yielding a reaction product comprising the solvent, particle-forming condensate products, and volatile components; and

removing at least a portion of the volatile components, yielding the sol;

wherein the silane compound is represented by the formula:



where:

B is a spacing group chosen from saturated or unsaturated C₁-C₁₈-alkylene and substituted or non-substituted arylene; wherein said alkylene and arylene optionally feature a carbon chain segment including one or more of: oxygen, nitrogen, sulphur, phosphorus, silicon and boron; and

Y is ethoxy or methoxy;

wherein the particle-forming condensate products have a

reactive amino group on the surface thereof; and
wherein the volatile components comprise alcohols and
water.